

Mars Exploration Science Monthly Newsletter

A publication of the Mars Program Office and the Mars Exploration Program Analysis Group (MEPAG)

Issue: July 2010

Next MEPAG meeting September 30 – October 1, 2010, Monrovia, California.

Mars Science News

Dear MEPAG Members,

I am pleased to announce the appointment of Dr. David Des Marais as the next Chair of the MEPAG, effective August 1st, 2010.

David Des Marais received a Ph.D. in Geochemistry from Indiana University in 1974. His long-term research interests have been the biogeochemical carbon cycle and the early evolution of Earth and its biosphere. His areas of specialization have included the stable isotope geochemistry of carbon in lunar samples, meteorites and oceanic basalts, the biogeochemistry of microbial communities in hypersaline environments, and the biogeochemistry of ancient (Precambrian) carbonates and organic matter. He serves on the editorial boards of the two journals *Astrobiology* and *Geobiology*. He is the principal investigator of the Ames Research Center team of the NASA Astrobiology Institute. Des Marais is an interdisciplinary scientist for astrobiology on both the Mars Exploration Rover 2003 science operations working group and the Mars 2005 CRISM infrared spectrometer.

Please join me in welcoming Dave to his new position.

Regards,
Michael Meyer, Ph.D.
Mars Exploration Program Lead Scientist

Near-term Due Dates (next three months)

Due	Project
7/1	38th COSPAR Scientific Assembly late online registration deadline
7/9	2010 Sagan Exoplanet Summer Workshop late online registration deadline
7/12	2010 NLSI Lunar Science Forum registration deadline
8/1	MSL Landing Site Workshop presentations submittal deadline
8/4	5th Alfven Conference preregistration deadline
9/1	GIS for Planetary Mappers II deadline for indication of interest
9/3	1st Planetary Crater Consortium Meeting abstracts deadline
9/20	First Moscow Int'l Solar System Symposium registration deadline
9/27	Geological Society of America National Meeting online registration deadline

Fourth MSL Landing Site Workshop – Call for Presentations

Dear Colleague:

You are invited to participate in the fourth landing site workshop for the 2011 Mars Science Laboratory (MSL) rover mission. The workshop will be held in the vicinity of Pasadena, California, on September 27-29, 2010. The workshop will be held at the DoubleTree Hotel in Monrovia, California, and will be just before the MEPAG meeting to be held at the same location.

This workshop is expected to focus on the outstanding science questions, surface characteristics, and relative merits of the final MSL landing sites remaining under consideration. Outcomes will include a list of testable hypotheses that can be accomplished at each site using the MSL science payload. We anticipate a final, fifth landing site workshop will be held in the early spring of 2011 that will be the final workshop prior to selection of the site by NASA Headquarters.

We are soliciting a range of presentations related to the four remaining landing sites under consideration: Eberswalde crater (23.86°S, 326.73°E), Gale crater (4.49°S, 137.42°E), Holden crater (26.37°S, 325.10°E), and Mawrth Vallis (24.01°N, 341.03°E). Presentations related to refined understanding of the geologic setting and physical nature of the surface at each site are especially welcomed. Talks should emphasize the pros and cons of the science possible at each site relative to the mission science objectives and describe testable hypotheses that can be evaluated using the MSL science payload. Talks on the characteristics of the surface should focus on aspects that are important for landing or roving. Identification of specific candidate science targets and traverses within and/or outside the ellipse (for go to sites) is encouraged. An overview of the mission science objectives, a description of the engineering constraints on surface characteristics important for landing and roving, as well as other aspects of the MSL mission, can be found at <http://marsoweb.nas.nasa.gov/landingsites/> and <http://webgis.wr.usgs.gov/msl/>. A description of the MSL science payload may be found at <http://msl-scicorner.jpl.nasa.gov/>.

All members of the scientific community are encouraged to participate in this important activity. Persons wishing to make a presentation at the workshop should provide a title and brief (several sentence) description of the content to John Grant (grantj@si.edu) and Matt Golombek (mgolombek@jpl.nasa.gov) by August 1, 2010. The input from the science community is critical to identification and evaluation of optimal landing sites for the MSL. We look forward to your continued involvement in these activities!

Sincerely,
John Grant and Matt Golombek
Co-Chairs, Mars Landing Site Steering Committee

Mars Global Reference Atmospheric Model (Mars-GRAM)

Mars Global Reference Atmospheric Model (Mars-GRAM) is an engineering-level atmospheric model developed by Marshall Space Flight Center's Natural Environments Branch. Mars-GRAM is widely used for diverse mission applications. Applications include systems design, performance analysis, and operations planning for aerobraking, entry descent and landing, and aerocapture. From 0-80 km altitude, Mars-GRAM is based on NASA Ames Mars General Circulation Model (MGCM), while above 80 km it is based on Mars Thermospheric General Circulation Model (MTGCM).

Mars-GRAM and MGCM use surface topography from Mars Global Surveyor Mars Orbiting Laser Altimeter (MOLA), with altitudes referenced to the MOLA constant potential surface (areoid). Mars-GRAM has recently been reclassified as public domain software. As a result of this change, Mars-GRAM is now available upon request through the Space Environments and Effects (SEE) program website at: http://see.msfc.nasa.gov/tte/model_Marsgram.htm

Upcoming Conferences and Workshops

Type	Date & Location	Event Information
<i>Third Quarter, 2010</i>		
	July 5-9, 2010 Hyderabad, INDIA	Laboratory Planetary Sciences at AOGS 2010 http://www.asiaoceania.org/aogs2010
	July 18-25, 2010 Bremen, GERMANY	38th COSPAR Scientific Assembly Topics: - SC B: The Earth-Moon System, Planets, and Small Bodies of the Solar System - SC C: The Upper Atmospheres of the Earth and Planets Including Reference Atmospheres - SC D: Space Plasmas in the Solar System, Including Planetary Magnetospheres - SC F : Astrobiology and Space Science, Including Habitability on Mars : Past, Present & Future - Panel on Planetary Protection (PPP) Contact: cospar@cosparhq.cnes.fr http://www.cospar2010.org/ or http://www.cospar-assembly.org
	July 20-22, 2010 Moffett Field, CA, USA	3rd Annual NASA Lunar Science Forum Ames Research Center Registration deadline July 12, 2010 http://lunarscience2010.arc.nasa.gov
	July 26-30, 2010 New York, New York, USA	73rd Annual Meeting of the Meteoritical Society Contact: Dr. Denton Ebel http://www.meteoriticalsociety.org/simple_template.cfm?code=news_meetings
	July 26-30, 2010 Pasadena, California, USA	2010 Sagan Exoplanet Summer Workshop http://nexsci.caltech.edu/workshop/2010/index.shtml
	August 3-4, 2010 Pasadena, CA, USA	3rd Meeting of the NASA Small Bodies Assessment Group (SBAG)
	August 8-13, 2010 Foz do Iguassu, BRAZIL	The Meeting of the Americas (American Geophysical Union) Session P04: Ice Processes of Terrestrial Bodies Polar and ice process vary widely among solar system terrestrial bodies. Earth is dominated by H ₂ O ice, while Mars is dominated by CO ₂ ice. The icy satellites of the outer planets are composed of H ₂ O, N ₂ , and CH ₄ . Yet many of these processes are common to multiple bodies, e.g. the CO ₂ gas jets observed on Mars may be driven by similar processes as the jets observed on Enceladus and Triton. The session seeks to include studies that include laboratory experiments under planetary conditions, models and observations of ice processes. Session P08: Terrestrial Analog Studies of Martian and Planetary Environments http://www.agu.org/meetings/ja10/program/scientific_session_search.php?show=detail&sessid=162). Terrestrial analogs serve as useful tools for understanding environments on Mars and other planetary environments. With planetary high spatial resolution imagery, hyperspectral datasets, and in situ studies provided by rovers, results can better than ever before be compared with field and remote sensing studies of Earth. analogs have increasingly taken on an international scope, with relevant investigations in Latin America and other places. This session seeks to include studies in the Americas, as well as other locales, that have increased our understanding of the geology and possible life-forming environments on other worlds. Detailed information on the programme and meeting organization can be found at http://www.agu.org/meetings/ja10/

	August 21-27, 2010 Budapest, HUNGARY	20th General Meeting of the International Mineralogical Association (IMA2010) You are invited to contribute to the session: PL121: Planetary mineralogy: Meteorites, shock metamorphism, and more. For general information, please visit http://www.ima2010.hu
	August 30 – September 2, 2010 Madison, WI, USA	Venus Atmosphere and Surface Workshop and the 8th VEXAG Meeting Scientists interested in comparative studies of Earth and Venus, as well as Venus atmosphere are invited to attend. Register at http://www.lpi.usra.edu/vexag For more information, visit http://venus.wisc.edu/workshop
	September 6-8, 2010 Pushchino, RUSSIA	10th European Workshop on Astrobiology Contacts: Dr. Anatoli K. Pavlov (anatoli.pavlov@mail.ioffe.ru) Dr. David Gilichinsky (gilichin@online.stack.net) http://www.ioffe.ru/EANA/index.html
	September 7-10, 2010 Exeter, UNITED KINGDOM	ExoClimes 2010 Exploring the Diversity of Planetary Atmospheres For information: http://www.exoclimes.org Contact exoclines@astro.ex.ac.uk
	September 14-16, 2010 Washington, DC, USA	2010 Annual Meeting of the Lunar Exploration Analysis Group (LEAG 2010) http://www.lpi.usra.edu/meetings/leag2010/
	September 19-25, 2010 Rome, ITALY	European Planetary Science Congress 2010 Session: "Exploring the Martian Moons" http://meetingorganizer.copernicus.org/EPSC2010/session/3837 Session: "Earth analogues as natural field facilities for astrobiology and space science" http://meetingorganizer.copernicus.org/EPSC2010/session/3902 Field Sites: public directly in contact with astrobiological expedition campaigns http://meetingorganizer.copernicus.org/EPSC2010/session/4003 Conference information: http://meetings.copernicus.org/epsc2010/
	September 20-21, 2010 Flagstaff, Arizona, USA	GIS for Planetary Mappers II Indication of interest by September 1, 2010 http://webgis.wr.usgs.gov/pigwad/docs/GIS_for_Planetary_Mappers2010.htm
	September 22-24, 2010 Flagstaff, Arizona, USA	1st Planetary Crater Consortium Meeting Contact Nadine Barlow at Nadine.Barlow@nau.edu to let her know if you plan to attend so that plans can be made for refreshments, etc. Deadline for abstract submission September 3, 2010 http://www.planetarycraterconsortium.nau.edu/
	September 27-29, 2010 Monrovia, California USA	Fourth MSL Landing Site Community Workshop Call for presentations. Send to John Grant (grantj@si.edu) and Matt Golombek (mgolombek@jpl.nasa.gov) by August 1, 2010.
	September 30 – October 1, 2010 Monrovia, California USA	MEPAG #23
<i>Fourth Quarter, 2010</i>		
	October 4-8, 2010 Sapporo, JAPAN	5th Alfvén Conference: Plasma Interaction with Non-Magnetized Planets/Moons and Its Influence on Planetary Evolution Preregistration deadline August 4, 2010 http://www.ep.sci.hokudai.ac.jp/~alfven5/

	October 4-8, 2010 Pasadena, California, USA	42nd Annual Meeting of the DPS http://dps.aas.org/meetings/2010/
	October 11-15, 2010 MOSCOW	First Moscow International Solar System Symposium The main theme of the symposium will be Mars system studies. This theme is closely related to Phobos Sample Return Mission devoted to Mars and Phobos study, which is in preparation for launch in the end of 2011. Registration deadline September 20, 2010 http://ms2010.cosmos.ru/
	October 19, 2010 Denver, CO, USA	Next 2001 Mars Odyssey PSG Meeting Lockheed Martin Space Systems, Denver, CO
	October 31– November 3, 2010 Denver, Colorado, USA	Geological Society of America National Meeting Online registration deadline September 27, 2010 http://www.geosociety.org/meetings/
	November 8-9, 2010 NETHERLANDS	Mars Express Science Working Team Meeting joint with Venus Express Science Team Meeting Contact Oliver Witasse at owitasse@rssd.esa.int
	November 15-19, 2010 Orlando, Florida, USA	ISPRS Symposium / Planetary Mapping Workshop The symposium has a dedicated workshop on Planetary Mapping, which will include data acquisition, processing and analysis, as well as planetary reference system and data bases. http://www.asprs.org/orlando2010/index.html Call for abstracts http://www.asprs.org/orlando2010/OrlandoCallDomestic.pdf
	December 13–17, 2010 San Francisco, California, USA	AGU Fall Meeting http://www.agu.org/meetings
<i>First Quarter 2011</i>		
	January 25-26, 2011 Washington, DC, USA	4th Meeting of the NASA Small Bodies Assessment Group (SBAG)
	March 2011	Fifth MSL Landing Site Community Workshop
	March 7-11, 2011 The Woodlands, TX, USA	42nd Lunar and Planetary Science Conference http://www.lpi.usra.edu/meetings/lpsc2011/
<i>Second Quarter, 2011</i>		
	April 11-15, 2011 Houston, Texas, USA	Humans in Space Symposium Registration opens September 1, 2010 Call for papers will be made on September 1, 2010 http://www.dsls.usra.edu/meetings/IAA/
<i>Third Quarter, 2011</i>		
	August 2011 Greenwich England, UNITED KINGDOM	74th Annual Meeting of the Meteoritical Society Contact: Gretchen Benedix http://www.meteoriticalsociety.org/simple_template.cfm?code=news_meetings
<i>Fourth Quarter, 2011</i>		

	October 2-7, 2011 Nantes, FRANCE	43rd Annual Meeting of the DPS & 2011 European Planetary Science Congress Contact Olivier Grasset at Olivier.Grasset@univ-nantes.fr http://www.aas.org/dps/meetings.html
	October 9-12, 2011 Minneapolis, Minnesota, USA	Geological Society of America National Meeting http://www.geosociety.org/meetings/
	December 12-16, 2011 San Francisco, California, USA	AGU Fall Meeting www.agu.org/meetings
<i>2012</i>		
	March 2012	43rd Lunar and Planetary Science Conference
	July 14-22, 2012 Mysore, INDIA	COSPAR 2012 Scientific Assembly http://cosparhq.cnes.fr/Meetings/sciass.htm
	August 2012 Cairns, Queensland AUSTRALIA	75th Annual Meeting of the Meteoritical Society Contact: Trevor Ireland http://www.meteoriticalsociety.org/simple_template.cfm?code=news_meetings
	August 2012 Brisbane, AUSTRALIA	The 34th International Geological Congress http://www.33igc.org/
<i>2013</i>		
	March 2013	44th Lunar and Planetary Science Conference
	July 2013 Pasadena, California, USA	8th International Conference on Mars California Institute of Technology
<i>2014</i>		
	March 2014	45th Lunar and Planetary Science Conference
<i>2015</i>		
	March 2015	46th Lunar and Planetary Science Conference

Special holidays to consider when scheduling conferences/workshops/ meetings:

Good Friday	4/2/2010	4/22/2011	4/6/2012	3/29/2013	4/18/2014
Rosh Hashanah	9/9/2010	9/29/2011	9/17/2012	9/5/2013	9/25/2014
Yom Kippur	9/18/2010	10/8/2011	9/26/2012	9/14/2013	10/4/2014
(Note that Jewish holidays start at sundown the previous evening).					
Thanksgiving Day, U.S.	11/25/2010	11/24/2011	11/22/2012	11/28/2013	11/27/2014
Thanksgiving Day, Canada	10/11/2010	10/10/2011	10/8/2012	10/14/2013	10/13/2014

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Please send your Mars Community Announcements and calendar items for inclusion in next month's email to Joyce Pulliam, Joyce.N.Pulliam@jpl.nasa.gov, 818-393-0444.

All announcements listed in this newsletter will be posted on the MEPAG website, available at <http://mepag.jpl.nasa.gov>.